

BUSINESS IN BRIEF

Business activity appears to have picked up new momentum in October and early November, following a slowing of the rate of recovery in the third quarter. And a review of trends in key areas of the economy shows that most signs point to a continued advance.

Business is now planning to invest 4% more in new plant and equipment in 1962 than this year, according to the preliminary McGraw-Hill survey. Experience shows that plans are revised upwards in recovery periods. Thus, the McGraw-Hill survey results in late-1954 and late-1958 were 11% and 6% short of actual spending in 1955 and 1959. If this performance is repeated, a good rise in capital expenditures could take place next year.

Expanding business investment in new plant and equipment is important for both prosperity and growth. Such investment did not get back to previous peak levels during the 1958-60 recovery period. This lag in business capital investment was one of the important factors in holding back the growth of the over-all economy.

Trends in corporate post-tax earnings will influence the vigor of the advance in business investment. Earnings moved ahead in good fashion in the second and third quarters of the year. However, a continued increase will be necessary to produce the rise in business investment in new plant and equipment necessary for full prosperity and growth.

Retail sales picked up during the autumn months, after a decided lag in the third quarter. New automobile sales in October totaled 530,000, almost equal to last year despite shortages caused by strikes. Dealer inventories stood at 662,000 versus 925,000 a year earlier. Used car prices have firmed. And consumers are again in a position to expand their instalment credit obligations.

Sales at department stores have been in a rising trend since February. They held up well during September in face of unfavorable weather. And sales moved ahead in October to a level 6% above the recession low.

Consumer income has increased more than 4% from its recession low in February. Consumption expenditures, including those for services, have risen almost as much as income. In general, the consumer appears to be behaving pretty much as he did in past recovery periods, despite the uncertainties in the international situation.

The Federal government's purchases of goods and services rose at an estimated \$1.3 billion annual rate in the third quarter. Spending is scheduled to rise \$2 billion a quarter in the year ahead.

Business inventory policy remains conservative. Inventories have been built up by about \$2 billion or 2%. That's not an unusual rise for this stage of a recovery period. With delivery times almost universally short, and prices stable, there is little need for anyone to buy in advance.

However, rising sales will require further increases in inventory investment. And the triennial labor-management negotiations scheduled in steel next summer may lead to some build-up in steel inventories during the first half of 1962. Thus, inventory buying promises to remain a plus factor in the business picture.

The nation's foreign trade surplus declined sharply in the third quarter. Merchandise exports held steady while imports rose 15%. Thus, over-all exports of goods and services ran at a rate only \$2½ billion above outpayments for imports of goods and services. In the first quarter, the export surplus had reached a rate of \$5.3 billion.

This run-down of trends in major sectors of the economy supports the view that the basic factors favor continued recovery. The only notable area of weakness is in exports, and this is chiefly related to a slowing of the business advance abroad. Other trends appear consistent with a pattern of advance similar to that in past periods of business cycle upswing.

There is, however, little room for complacency. The balance of payments problem calls for hard and concerted effort. Business capital investment is still impeded by unrealistic tax measures. And an air of uncertainty, a lack of the important but intangible attribute of confidence, still surrounds individual and business economic decisions. Thus, the key to the business outlook may well lie in the degree to which the nation as a whole succeeds in taking realistic and resolute action in dealing with the problems it confronts.

EMPLOYMENT SHIFTS IN MANUFACTURING

Is Overhead Getting Too Big?

Manufacturing overhead—operating expenses over and above the production cost of goods sold—has risen persistently in the postwar period. Evidence of this is reflected in the shifting occupational structure of the manufacturing labor force. Between 1947 and 1960, manufacturing industries were able to increase output by 64% with only a 7% increase in employment. However, the number of workers directly involved in the physical process of production actually declined by some 4%, while the number of nonproduction workers—or white-collar

workers—increased by 63%. In the middle range are sales workers and managers, officials and proprietors.

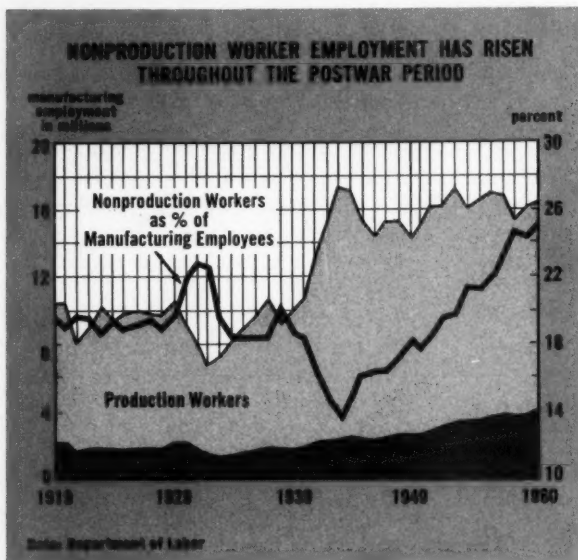
Variations in experience by industry and occupation are closely associated with the forces that underlie the rise in overhead. Several factors stand out:

- **Emphasis on research and development.** In 1960 U. S. industry performed R & D costing \$10 billion. This has directly increased the number of nonproduction workers, particularly professional and technical employees. The proportion of nonproduction worker employment tends to be highest in those industries performing the most research and development.

- **Automated equipment** has been introduced by heavy capital investment in the postwar period, thereby enabling output to increase without an equivalent rise in production workers. This lifts the proportion of nonproduction workers. At the same time, there is evidence that automated facilities require more nonproduction workers for design and installation of equipment and for production planning and control.

- **Record-keeping** and other overhead functions have expanded: pension funds, grievance machinery, personnel testing, withholding taxes and social security all require the use of more nonproduction workers.

Together these factors have contributed to an increase in nonproduction worker employment from 2.5 million in 1947 to 4 million now, or from 16% to about 25% of manufacturing employment. This is in sharp contrast to prewar experience when the ratio moved within a narrow range of 18-20% of manufacturing employment.



employees—increased by 63%. What has been the effect of this increase in overhead on productivity and the cost structure of manufacturing?

Sales, Supervision and Science

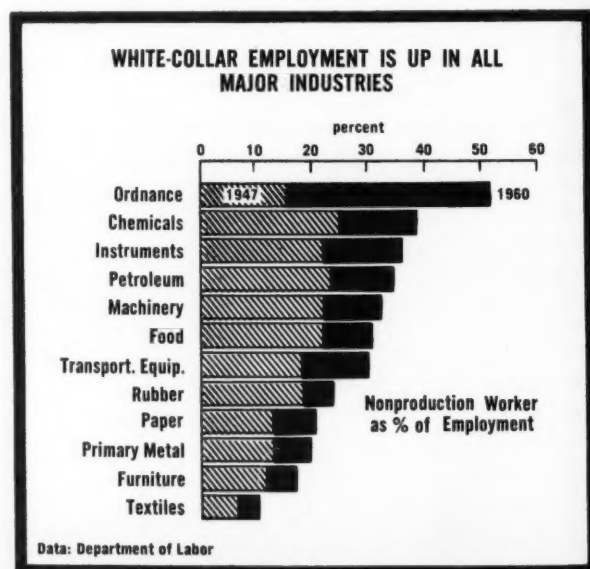
First, let's look at what the nonproduction worker does and where he is employed. As used by the Bureau of Labor Statistics, nonproduction workers include all workers *not* closely associated with production operations. For the most part, they are salaried workers—engaged, for example, in executive, purchasing, and professional activities; in sales, credit and advertising; in routine office functions and factory supervision. A less widely and closely equivalent term is white-collar worker.

- The proportion of nonproduction workers varies with *industry*—from 10% of total employees in textiles to over 50% in ordnance. In several industries such as machinery, chemicals, petroleum and instruments over one-third of all employees are nonproduction workers.

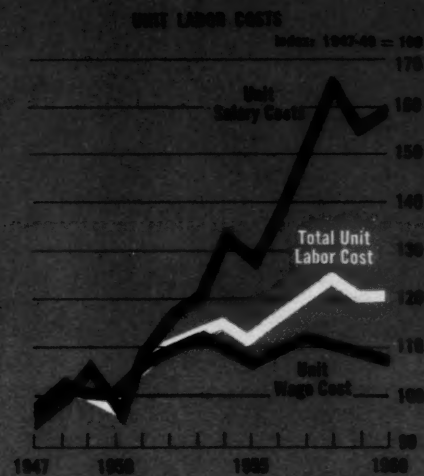
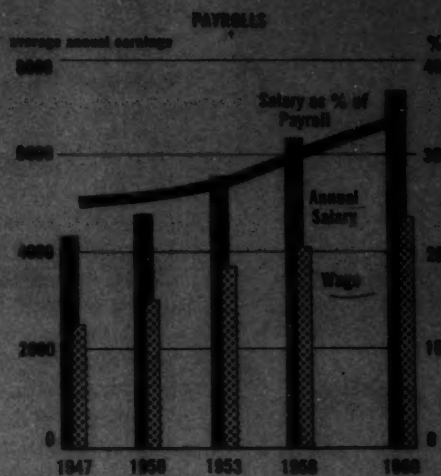
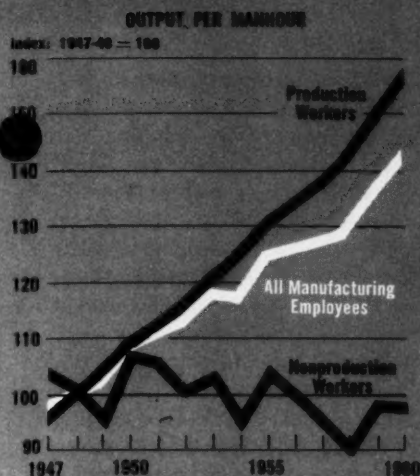
- The rate of gain for white-collar workers varies with *occupation*. The number of professional and technical workers has expanded most rapidly—up about 65% between 1952 and 1960. Clerical workers (the largest group) have experienced the smallest growth—some

Rising Numbers and Rising Costs

When the number of nonproduction workers is translated into overhead costs, it turns out that salaries have



HOW THE GROWING ROLE OF WHITE-COLLAR EMPLOYMENT HAS AFFECTED THE COST STRUCTURE OF MANUFACTURING



Data: Departments of Commerce and Labor; Federal Reserve Board

risen from one-quarter of factory payrolls in 1947 to more than one-third since 1958. Not only are there more salaried workers, but their earnings are higher: in 1960 average annual salaries were \$7300 compared to wages of \$4700. And, importantly, the absolute differential has been widening since the end of the Korean War, increasing from \$1900 in 1953 to \$2600 in 1960.

With the proportion of payrolls going into salaries on the rise, total payrolls are more stable over the business cycle. A research scientist developing a new product is less apt to be dropped when factory output falls. Nor do manpower requirements for the sales force, pension plans, etc. decline in proportion to a fall in output. Thus, salary payrolls have risen even during recession years, dampening the impact on over-all costs of a decline in wage payments.

The Role of Productivity

Payrolls are only one part of the equation that determines the unit labor cost structure of manufacturing. Productivity—or output per manhour—is the other significant element. And, it is the productivity of all employees that is relevant. Output per hour of white-collar employment can fall, but this will not be significant if output per hour of production worker employment is rising fast enough to maintain the over-all rate of productivity gain.

During the postwar period, productivity in manufacturing has risen about 3% per annum. However, there was a noticeable slowdown from 1955 through 1958, and even with substantial gains since, the rate after 1955 has been below the earlier postwar years. When output per production worker alone is looked at, no break in trend is discernible. Rather, the lag seems to be related to the fact that after 1955 manufacturing carried more overhead in the form of nonproduction workers while the rate of growth of output slowed down. As a result, output per salaried employee fell off sharply, putting a drag on over-all output per manhour.

Unit Labor Costs

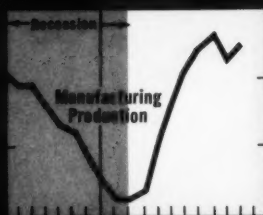
Over the postwar period as a whole, payrolls per man-hour rose faster than output per manhour: as a result, unit labor costs went up by more than one-quarter. The increase came in two spurts:

- During the Korean War, pressure came from the payroll side as pay rates in general rose faster than productivity, thereby pushing up both unit wage and unit salary costs.
- Then, from 1955 through 1958 there was another upward push as unit salary costs soared when productivity dropped and salaries continued to rise. Unit wage costs remained almost unchanged as higher wages were offset by increased productivity.

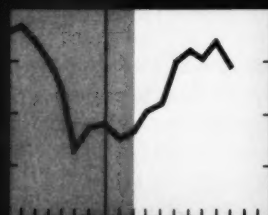
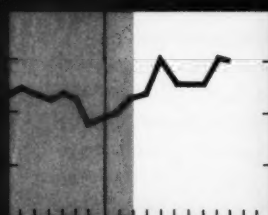
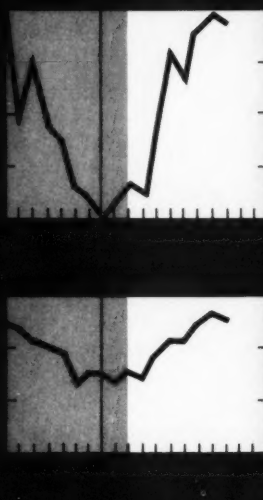
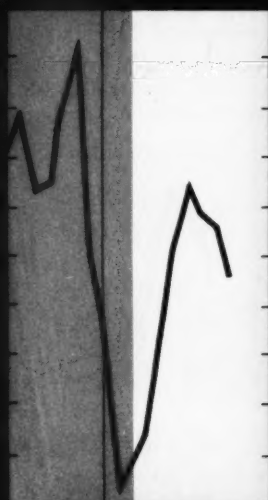
Since 1958 there has been a leveling out in unit costs, but the movement is difficult to interpret because the recovery-recession-recovery pattern of 1959-61 has been dominant in shaping the trend. It does seem clear, however, that the increase in overhead which characterizes the postwar period bears watching. First, the problem of inflexibility of employment—the failure to respond to changes in output—means that unit costs can rise sharply in recession. Then, there is the outlook for productivity. The next few years should see more light thrown on the question of whether the recent slowdown in productivity was due to a let-up in economic growth (when the quantity of nonproduction workers were not being used to their greatest advantage) or whether productivity faltered because white-collar employees, particularly professionals, were engaged in projects expected to pay off some time in the future.

At present, both unit wage and salary costs are dropping in typical recovery pattern as productivity rises more rapidly than employee compensation. Keeping unit costs in line could well be a significant factor in determining the duration and strength of the recovery—and, maintaining close control over overhead could be an important element in achieving this end.

MANUFACTURING NEW ORDERS, SALES AND PRODUCTION ARE UP SUBSTANTIALLY FROM THE RECESSION LOWS



ALL DURABLE GOODS INDUSTRIES SHARED IN THE RISE



TRENDS IN

The recovery from the 1960-61 recession is now in its ninth month. In this period, the increase in over-all industrial production has about equaled the advance at comparable stages of previous postwar recoveries. But, there have been a number of interesting and significant trends within individual industries.

Automobile production is moving into high gear following labor difficulties in the past few months. Car inventories are low, and virtually all 1961 models have been sold. Sales were strong in October, despite reports that they were held back by shortages of new cars.

The industry is scheduling production at 1.8 million units in the fourth quarter, almost double the rate in the first quarter of this year. The objective is to add 200,000 cars to dealer stocks placing them at 875,000 by year-end—well under last year's figure.

Estimates are that next year's sales of domestic cars could run to six or six and one-half million. Sales of imported cars are expected to hold at around 400,000—down from a peak of 668,000 in 1959. The market situation is regarded as favorable: incomes are rising; auto installment debt has been reduced; used car prices have firmed; and the new models have been well received.

Steel output has risen 44% since the end of last year, measured by seasonally adjusted figures. However, production declined slightly in October—the auto strikes held back steel use. New orders figures point to a rise in steel output through the end of the year. In all, ingot production for 1961 will probably run to a bit less than 99 million tons.

The industry looks for an improvement next year—to production of 110-115 million ingot tons. Consumption should rise with increased output of autos, machinery and other durable goods. In addition, inventories may be built up during the first half of 1962 as a hedge against difficulties stemming from negotiations on a new labor contract.

Production and sales of **nonferrous metals**—aluminum, copper, lead, zinc and tin—have picked up along with the business recovery. However, prices have been under downward pressures—world productive capacity is more than ample at the moment, so that competition is intense. Consumption of nonferrous metals is expected to rise in 1962. But few observers expect to see any pressure on capacity.

The 1959-60 recession had a smaller impact on production of **machinery** than did earlier postwar recessions. This was due partly to the moderate reduction in domestic business investment and partly to the strength of export markets. Over-all machinery output is about back to its pre-recession peak. And new orders have been moving well—the McGraw-Hill index for September stood at 193 compared with 159 in February.

Electronics sales to business and government appear to be in a definite uptrend. The market for computers, controls and similar equipment is still in a strong growth phase. But semi-conductor prices have declined this year,

IN INDUSTRIES

reflecting increasing competition among both domestic and overseas suppliers.

Appliances, TV, radio, furniture and rugs are all being produced in relatively large volume. Output of TV and radio sets turned up earlier than other home goods, and unlike most durable goods, exceeded the pre-recession output level in June and July. In August and September, this rate was not maintained.

Lumber, stone, clay and glass production and sales have also risen, along with construction activity. Seasonally adjusted, housing starts have been running more than 1.3 million units per year in recent months, compared to around 1.0 million at the beginning of the year, and total construction outlays have risen 5% since February.

Food and beverage sales fell sharply during the early recovery period, but in late summer regained their February 1961 peak. This swing has been partially a reflection of price movements. Wholesale processed food prices fell from 110.5 (1947-49=100) in February, to 106.7 in June, but are now back at about 108.

Domestic demand for **petroleum** products during the first nine months of this year was only 1% above a year earlier, in contrast to what is regarded as a normal rise of 2%. Demand has improved in recent months, though the rise has lagged a bit behind the general recovery. Estimates for next year point to a rise in consumption of perhaps 3%. Refinery output and crude production may rise less because inventories are now on the high side.

Chemical industry sales are at record levels. They are now running 15% above their low last November, despite a 2% decline in prices. While over-capacity is still a problem, operating rates have been moving up.

Sales and output of **paper and paper products** also have reached new high ground. In particular, packaging materials, a leading indicator, have been doing well.

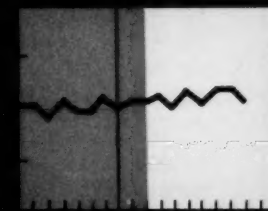
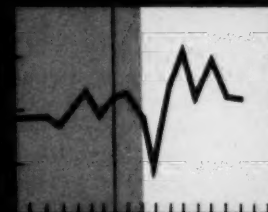
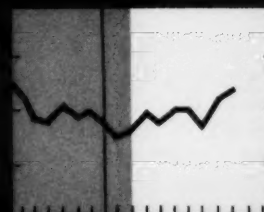
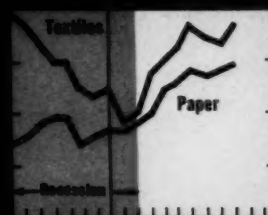
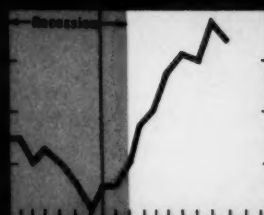
Textile and apparel sales are up 17% compared with January, and the rise in production is about the same. According to the McGraw-Hill survey, the industry now plans to increase capital expenditures 10% next year.

Production trends in many industries raise the question as to whether the pick-up experienced so far this year is due to a rise in real consumption or a rebuilding of inventories. The available statistics show a rise of \$3 billion in manufacturers' sales from the recession low as compared with an inventory rise of about \$1 billion.

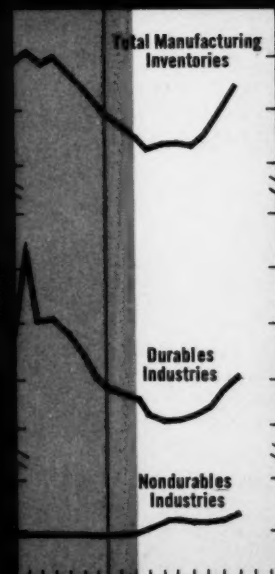
What is more, the bulk of this increase in manufacturers' inventories appears to have taken the form of a rise in goods in the process of production. There has been less rise in inventories of either purchased materials or finished goods.

Consequently, the inventory situation appears to be favorable. Stocks in almost all lines appear to be low in relation to present and prospective sales, and this seems to be true in the important area of steel inventories held by steel consumers. Thus, inventory building could proceed for some distance without lifting inventories into a top-heavy condition.

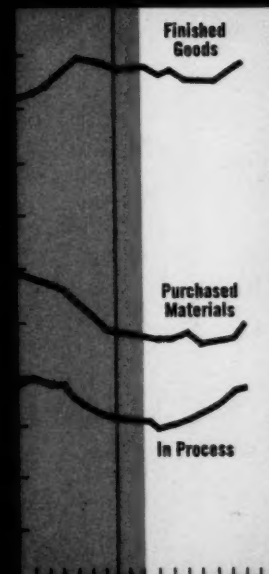
MOST NONDURABLE GOODS INDUSTRIES SHARED IN UPSWING



THE INVENTORY SWING TOOK PLACE MAINLY IN DURABLES INDUSTRIES



THE INCREASE HAS BEEN LARGELY IN "IN PROCESS" INVENTORIES



EDUCATION AND THE AMERICAN ECONOMY

Last year formal education cost Americans nearly \$45 billion, an amount equal to 9% of production of all goods and services. This figure covered:

- The salaries of 2 million teachers plus others employed in schools and colleges;
- Maintenance and carrying charges on \$43 billion worth of buildings and equipment; and
- The time and effort of 13.8 million high school and college students who might otherwise have contributed to the nation's output.

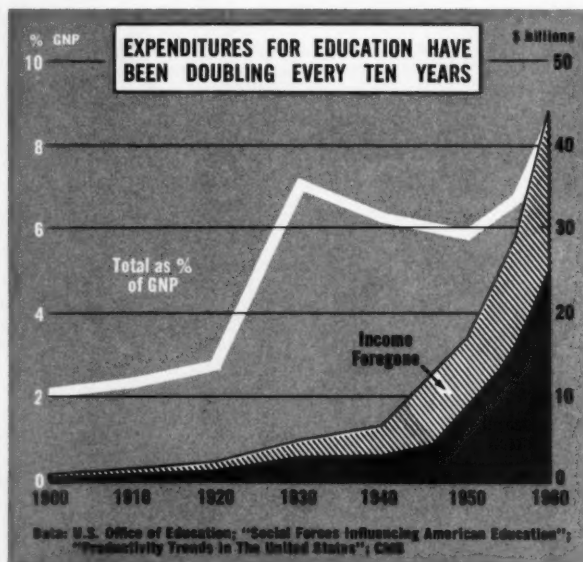
The growth in education has been one of the striking features of the American scene in the twentieth century. Expenditures on education more than doubled every ten years since 1900. The proportion of those 14-17 in high school rose from 10% in 1900 to 92% today. And 40% of those 18-21 are now in college as against 4% sixty years ago.

The very size and rapid growth of our educational system have raised a series of economic questions: How can we measure the value of a given level of education? What is the relation between education and economic growth? How much should the nation spend on education?

Return to the Individual

Consider first the relationship between education and individual incomes. It has long been known that persons with more schooling generally earn more.

For example, in 1958, men over 25 who had completed elementary school had a median income of \$3,770 a year. This means that half the total had incomes above, and half below, this figure. Those who had completed high school received a median income of \$5,570, or almost half again as much as elementary school graduates. And those with four years of college had a median income of \$9,210, almost two-thirds above the high school graduates.



Two points about these figures should be noted. First, the costs of additional education, including the income foregone while staying in school, should be set against the higher earnings. Second, the differences in income among these groups are not due entirely to education. Those with more education may also have more innate ability.

Calculations have been made of the average rate of return on investment in education which take into account the costs and differences in ability. The additional income earned over their lifetimes by those with high school or college education is adjusted by IQ ratings. Then, this is compared with the investment in education; i.e. the total cost. These estimates show a rate of return on the investment in a college education of nearly 10%. Fully adjusted figures for the return on investment in high school education have not been worked out, but the evidence suggests that it, too, could be in the neighborhood of 10-11%.

These rates of return have apparently held constant for 20 years, or perhaps even much longer. This stability is striking in view of the fact that the proportion of the population with college degrees is 72% greater than it was twenty years ago, and the proportion with high school diplomas is 78% higher.

In other words, the greater supply of high school and college graduates has been counterbalanced by a greater demand for educated personnel. The fastest growing occupations have been those requiring more education. So far, therefore, the frequently expressed fears that educated young people would be in oversupply have not proven true.

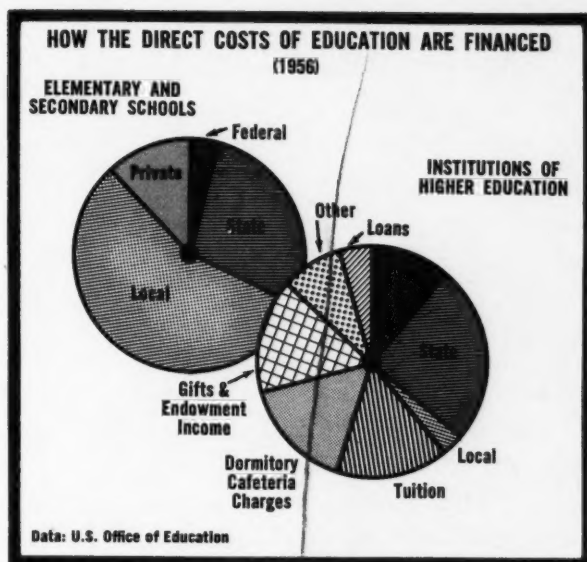
Education and Economic Growth

Another way of looking at education is in terms of its contribution to economic growth. It is quite obvious that the better educated the labor force is the more productive it will be. Moreover, the advance in technology, which is basic to growth, rests on education.

Several recent studies attempt to measure the importance of education in our economic advance. One such study concluded that 24% of the increase in GNP from 1929 to 1957 and 44% of the advance in output per worker could be attributed to the higher level of education of the labor force. In addition, increased knowledge and its application accounted for another 17% of the growth in GNP and 31% of the rise in output per employee.

Such precise conclusions should be interpreted with caution. If the contributions of other factors to growth are underestimated, the contribution of education, and especially of "increased knowledge and its application" which is the residual item, are overstated.

The techniques of measurement may understate, in particular, the contribution of capital investment to growth. And increased capital investment is essential to put technological advances to work. Thus, it cannot be



concluded from these studies that investment in education is relatively more important and capital investment relatively less important as a factor in economic growth.

Moreover, the gains from education accumulate only in the long run. If, beginning in 1962, each student remained in school one year longer than is currently the case, the costs in 1970 would still be greater than the added returns. Only in the succeeding decade would net additions to economic growth be generated.

How Much For Education?

On the basis of this evidence, how much should the nation spend on education? Clearly, the answer to this question involves an evaluation of the many intangible returns from education which each person must judge for himself. Even on strictly economic terms, the answer is far from simple. Nevertheless, some general conclusions do emerge.

The rate of return on investment in education is about the same as the rate of return on business investment. Thus, we have not passed the point where a dollar invested in education would yield less to the community than a dollar of new plant and equipment.

What is more, the record shows that the growth in GNP resulting from education has been sufficient to cover much of the cost of our school system despite the rapid rise in enrollment and expenditures. Thus, year-for-year as well as over time, a large part of the expenditure on education is self-financed.

Will these conclusions continue to hold true over the coming decade? This is a key question, for it is the income structure of the future in comparison with next year's cost which will determine the worthwhileness of next year's investment in education. Fortunately, it seems likely that the effectiveness of the resources devoted to education can be so increased by informed decision-making as to exert significant upward pressure on the rate of return.

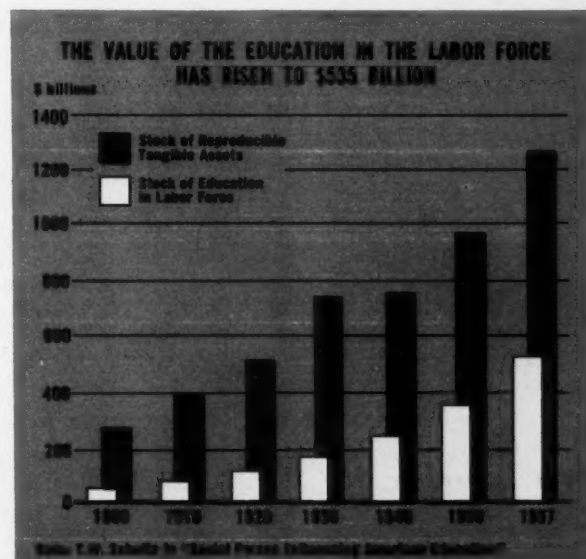
For example, it is clear that those with above average ability receive a much larger return from education. But one out of every five high school graduates who does not go to college has an IQ above 120. On the other hand, one person in four who graduates from college fails to make enough above what he would have made with a high school education to pay for the added schooling.

The rate of return could be raised by better counseling to match students more successfully with the education appropriate to them, and likewise, to cut down from its present 40% the proportion of entering students who do not graduate and the additional number who change majors or schools.

Other possibilities for increasing the amount of education imparted with a given amount of resources are:

- More efficient programing of classroom use over a longer working day and a longer school year. One estimate is that \$12.7 billion would be needed by colleges for building between 1957 and 1970 with current scheduling practices. Improved scheduling could cut this to \$4.3 billion.
- The use of television, team teaching and large lectures to make good teachers available to many. This could be combined with independent study, machine teaching and small discussion groups. Such a flexible program emphasizes the student's learning rather than the professor's teaching.
- Reevaluation of the skills a graduate should have acquired during his schooling, and revision of curriculum and course content along with a program of research to discover how students can acquire these skills most efficiently.

Perhaps paradoxically, the more successful the school system is in providing the same amount of education in a shorter time or with fewer resources, the more it will pay to invest in education.





A banker calls

A financial leader first, your banker is also a man of community affairs

Calling at a Saturday night square dance can help a banker serve his neighbors better all week long.

That's because taking part in things close to the community's heart is a sure way for a banker to better know the people and their financial needs.

In that way, a banker can have both the understanding and the insight to evaluate an individual's financial problem, counsel local businessmen and put the community's money to work wisely and profitably.

In a nutshell a banker has to be a civic doer as well as a financial counsellor. By joining in community affairs, taking on community responsibility and learning what makes his neighbors tick, a banker makes his bank more useful every day.

When all's said and done, it's usefulness that makes commercial banking so important to the nation's economy and the American way of life.

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